



(51) International Patent Classification:

C07D 471/10 (2006.01) *A61K 31/438* (2006.01)
C07D 487/10 (2006.01) *A61P 1/00* (2006.01)

(21) International Application Number:

PCT/IB2012/052649

(22) International Filing Date:

25 May 2012 (25.05.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/490,848	27 May 2011 (27.05.2011)	US
61/560,960	17 November 2011 (17.11.2011)	US
61/642,116	3 May 2012 (03.05.2012)	US

(71) Applicant (for all designated States except US): **NOVARTIS AG** [CH/CH]; Lichtstrasse 35, CH-4056 Basel (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **AMBARKHANE, Ameet Vijay** [IN/GB]; Novartis Pharmaceuticals UK Limited, Wimblehurst Road, Horsham, West Sussex Sussex RH12 5AB (GB). **BHALAY, Gurdip** [GB/GB]; Novartis Pharmaceuticals UK Limited, Wimblehurst Road, Horsham, West Sussex Sussex RH12 5AB (GB). **BECKETT, Martin** [GB/GB]; Novartis Pharmaceuticals UK Limited, Wimblehurst Road, Horsham, West Sussex Sussex RH12 5AB (GB). **DALE, James** [GB/GB]; Novartis Pharmaceuticals UK Limited, Wimblehurst Road, Horsham, West Sussex Sussex RH12 5AB (GB). **HAMADI, Ahmed** [FR/GB]; Novartis Pharmaceuticals UK Limited, Wimblehurst Road, Horsham, West Sussex Sussex RH12 5AB (GB). **MAZZACANI, Alessandro** [IT/GB]; Novartis Pharmaceuticals UK Limited, Wimblehurst Road, Horsham, West Sussex Sussex RH12 5AB (GB). **MCKENNA, Jeffrey** [GB/GB]; No-

vartis Pharmaceuticals UK Limited, Wimblehurst Road, Horsham, West Sussex Sussex RH12 5AB (GB). **THOMSON, Christopher** [GB/GB]; Novartis Pharmaceuticals UK Limited, Wimblehurst Road, Horsham, West Sussex Sussex RH12 5AB (GB).

(74) Agent: **WOODCOCK-BOURNE, Heather**; Novartis Pharma Ag, Patent Department, CH-4002 Basel (CH).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

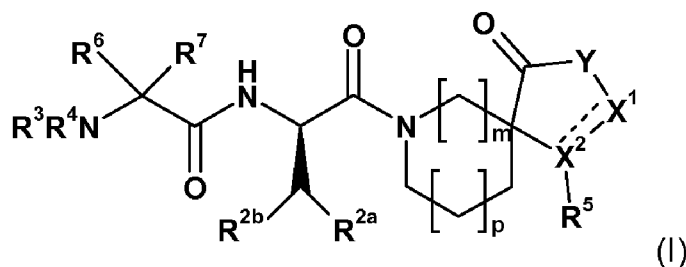
Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

Published:

— with international search report (Art. 21(3))

(54) Title: 3-SPIROCYCLIC PIPERIDINE DERIVATIVES AS GHRELIN RECEPTOR AGONISTS



(57) Abstract: The invention relates to derivatives of formula (I), wherein the substituents are as defined in the specification; to processes for the preparation of such derivatives; pharmaceutical compositions comprising such derivatives; such derivatives as a medicament; such derivatives for the treatment of a disorder or a disease mediated by the ghrelin receptor.